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All papers submitted to COBRA were subjected to a double-blind (peer review) refereeing process. Referees were drawn from an expert panel, representing respected academics from the construction and building research community. The conference organisers wish to extend their appreciation to the following members of the panel for their work, which is invaluable to the success of COBRA.

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Post conflict housing reconstruction: sustainability perspectives of human settlements

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Abstract

Wars continue in many parts of the world and most of them are often lengthy and extends for more than a decade. Wars often cause huge impacts. It is widely acknowledged that wars exist in many developing countries. As conflicts have a greater impact on the built environment of a country, post conflict reconstruction requires repair and reconstruction of housing, social and economic infrastructure of conflict affected countries. Housing reconstruction after war plays an important role in establishing the country's development and peace. But it is claimed that most of housing projects are not appropriate for the beneficiaries' needs and socio-economic conditions. Therefore, this research study will focus on how to integrate beneficiaries' socio-economic conditions and housing needs into post conflict housing reconstruction. Research methodology includes a comprehensive literature review, semi structured interviews with beneficiaries, experts, policy makers and practitioners. As this study enhances post conflict housing reconstruction through integrating users' housing needs and their socio-economic conditions it contributes to sustainable development. However sustainability perspectives of post conflict human settlements are much broader and involve security, return and reintegration of displaced population, economic development, good governance and sustainable urbanisation.

Key words: Conflicts, post conflict reconstruction, post conflict housing reconstruction, human settlements, sustainability

1 Introduction to research

1.1 Background

Wars continue in many parts of the world. Hewitt indicates there have been about 150 wars, each with more than a thousand violent deaths, since the Second World War (1997 cited El-Masri and Kellett, 2001). The World Bank (1998) reports over 50 countries have been involved in major intrastate

conflicts since 1980. More than thirty armed conflicts were in progress during the 1990s, of those 24 lasted more than a decade and more than 5.5 million civilians were killed whilst more than 25 million people were forcibly uprooted (Hewitt 1997 cited El-Masri and Kellett, 2001).

It is found most of today's conflicts are intrastate rather than conflicts between states (UN-HABITAT, 2004; Zenkevicius, 2007). Many of the recent conflicts are identified as armed conflicts. The nature of armed conflict has changed dramatically in recent years and it is observed that there are three salient characteristics. First, most armed conflicts last for decades. Second, they take place mostly in developing countries. Third, the primary target of conflict is civilians and civil life.

Most civil wars are often lengthy and continue for more than a decade. Apart from that an unfortunate number of wars that ends have recurred and it is argued that on many occasions wars that have ended break out into conflict again (World Bank, 1998; Patrick, 2006). For example, In Lebanon the civil war lasted for 17 years, in Afghanistan for two decades, in Guatemala for over three decades and in Sudan for four decades (FAO, 2005). In Sri Lanka civil war lasted for more than 30 years (International Crisis Group, 2009). It is widely acknowledged that wars exist in many developing countries (Cuny and Tanner, 1995; El-Masri and Kellett, 2001; Anand, 2005; Fearon *et al.*, 2009). According to Gleditsch *et al.* (2002), in 2001 there were 34 armed conflicts involving 29 countries and 26 of those were in developing countries. In 2002 there were 31 armed conflicts involving 24 countries, 22 of which were developing countries (Eriksson *et al.*, 2003). Developed countries experience conflict as well, but conflicts are more common in poor countries than wealthier countries. Afghanistan, Bosnia, Ethiopia, Iraq, Kosovo, Lebanon, Sudan, Sri Lanka and Somalia are some examples of this fact (El-Masri and Kellett, 2001). Wars are no longer fought only on battlefields between large armies and they are often waged in cities and villages by amateur militia, driven by long-simmering ethnic and religious ideologies and fuelled by a struggle for political and economic control (UN-HABITAT, 2004). As a result, more than 90 % of the victims of today's wars are civilians and of those, women and children bear an inordinate burden (UN-HABITAT, 2004).

Wars often cause huge impacts such as death and injury to much of the population, massive displacement of people as refugees and Internally Displaced Persons (IDPs), widespread destruction of properties, poor institutional capacity and vulnerability to disease and crime (FAO, 2005; Patrick, 2006). Further, conflicts greatly reduce the security, prevent access to production facilities and erode the social capital (World Bank, 1998). As modern day conflicts have lasted for many years, the destruction and disruptions they cause are equally drawn out over time (Cuny and Tanner, 1995).

Post conflict reconstruction refers to the reconstruction of the enabling conditions for a functioning peace time society and it involves the full range of integrated activities and processes that have to be

initiated in order to reactivate the development process that has been disrupted by the conflict. Post conflict reconstruction is a priority area in many parts of the world including Africa, the Middle East and South Asia and it has emerged as a major challenge for development agencies. Major interventions that take place during post conflict reconstruction include, restoration of the physical infrastructure and essential government functions and services, rebuilding weakened institutions, reviving the economy, reconstructing the framework for democratic governance, rebuilding and maintaining key social infrastructure and planning for financial normalisation (World Bank, 1998; Rugumamu and Gbla, 2003). As conflicts have a greater impact on the built environment of a country, post conflict reconstruction requires repair and reconstruction of housing and the social and economic infrastructure of the affected countries. Though post conflict reconstruction is not confined to the physical reconstruction of economic and social infrastructure it is accepted as the most visible indicator of economic reconstruction that is important for building trust and sustaining confidence among the war affected population and investors.

Among the reconstruction of physical structures, housing reconstruction remains important in the context of post conflict reconstruction. Kibreab (2002) comments, peace and development are interrelated and in war-torn societies a lasting peace is considered inconceivable without addressing the problem of reintegration of people dislocated by war and insecurity. Reintegration of displaced people again claims the need of repair and reconstruction of housing. According to Kibreab (2002), this can lead countries towards development and then peace. Housing reconstruction after war can help in the peace process by restoring dignity, thrust and faith in the future (Barakath *et al.*, 2004). Therefore housing reconstruction after war plays an important role in establishing the country's development and peace. Despite this important issue, most post conflict housing reconstruction projects are found to be unsuccessful and hinder the achievement of post conflict reconstruction objectives. Therefore, post conflict housing reconstruction emerges as an important research area with much potential. In this context, the following section introduces the general focus of this research.

1.2 Research problem

Housing is identified as an essential asset to the well-being and development of most societies, which is linked to livelihood, health, education, security and social stability (Barakath, 2003; Harris and Arku, 2007). Most importantly, housing is identified as extremely vulnerable to conflict and it emphasizes the need for more prominent housing reconstruction programming after conflicts (Barakath, 2003). Post conflict housing reconstruction is considered to be a crucial incentive to repatriation and rebuilding of communities as part of the efforts towards peace (Barakath, 2003) and is identified as one of the most important problems to be dealt with during reconstruction (Malpass, 2003). Minervini (2002) identifies housing reconstruction as a prerequisite for economic recovery after a complex emergency.

However, it is claimed that most housing reconstruction projects are not appropriate for the beneficiaries' needs and result in remodelling or abandonment (Barakath, 2003). Cain (2007) says, the formal sector is geared to producing housing as a product that is delivered relatively quickly, as industrialized, standardised packages made with imported materials. It is found that housing interventions after conflicts are planned and implemented rapidly paying little attention to the local skills, preferences and needs for the sake of doing something within short space of time (Barakath, 2003). Such centrally controlled, top-down approaches to reconstruction after war have failed and have been unsuccessful in many parts of the world (El-Masri and Kellett, 2001; Barakath *et al.*, 2004). In such approaches, pre-fabricated technology and professional judgements are used to produce mass housing units because of the urgency to re-house the victims. Barakath *et al.*, (2004) further identify that in this context the priorities are set by professional staff that rely more on their belief of the requirements of people. Centrally controlled approaches neglect the users' needs, expectations, local conditions, socio-economic and cultural and developmental issues (El-Masri and Kellett, 2001; Barakath *et al.*, 2004). Meanwhile, El-Masri and Kellett (2001) claim, that many aspects of housing are bound up with socio-economic factors. Therefore understanding the socio economic conditions of the population is essential for comprehensive reconstruction, which is found to be missing in the top-down approach to reconstruction. As Armstrong (1991) highlighted, the rapid response to housing has neglected the linkages with the local community and local economy.

Consequently, the outcome of such housing projects is the abandonment or alterations to dwellings (El-Masri and Kellett, 2001; Barakath *et al.*, 2004). Barakath *et al.*, (2004) indicate the reconstruction approach should be tailored to the requirements of the people. Ukoha and Beamish (1997), emphasize the need for addressing the cultural issues of different groups and meeting their needs and expectations in housing strategy. Therefore, El-Masri and Kellett (2001) acknowledge the fact that reconstruction planning must consider a variety of socio-economic and cultural aspects and should not be limited to the physical needs. Further, they argue that it should be place specific to peoples' needs, perceptions and expectations. Therefore, for housing reconstruction to be successful, it should be integrated and blended with the beneficiaries' socio economic conditions and their housing needs. Emphasis needs to be placed on proper planning of settlement reconstruction to avoid the waste of resources and long term social problems within the community.

Despite a notable increase in awareness of the issue of post-conflict housing, there remains a paucity of research in this area (Barakath *et al.*, 2004). As suggested in the literature, reconstruction should take into account beneficiaries' needs and their socio-economic conditions for successful post conflict housing reconstruction. Therefore, it is worthwhile not just to know their housing needs and socio economic conditions but also to understand the relationship between them. Therefore, this research is

dedicated to explore beneficiaries' housing needs and socio economic conditions whilst establishing the relationship between them. This will then support post conflict reconstruction by incorporating the identified strategies within the process of post conflict housing reconstruction.

1.3 Scope of the study

Sri Lanka has been involved in violent conflict for more than three decades (International Crisis Group, 2009; Senanayake, 2009). The North and East of the country have been severely affected by this armed conflict. An estimated 85,000 people have died in fighting between the government and Liberation Tigers of Tamil Eelam (International Crisis Group, 2009) and over half a million people have been displaced (Senanayake, 2009). This armed conflict ended in 2009 and there is a golden opportunity to move quickly to heal the wounds of years of conflict through timely reconstruction (Senanayake, 2009). Return and resettlement of IDPs in villages entails rebuilding villages, housing infrastructure, providing electricity, water, access roads and basic services. As much of the housing is reported to have badly damaged or destroyed (International Crisis Group, 2010), housing reconstruction remains important in Sri Lanka. Therefore, Sri Lanka provides a sound basis for this research and thus, the scope of this study will be centred on Sri Lanka.

1.4 Aim and objectives of the research

As derived from the research problem and the literature review and synthesis, the aim of this research is to explore beneficiaries' socio-economic conditions and housing needs and establish the relationship between them. This will help to enhance post conflict housing reconstruction by incorporating the identified strategies within the process of post conflict housing reconstruction. To achieve this aim, the following objectives are set.

1. To examine the relationship between conflict and post conflict reconstruction
2. To identify and explore beneficiaries' post conflict socio-economic conditions and their housing needs
3. To explore and establish the relationship between socio economic conditions and housing needs
4. To examine the process of post conflict housing reconstruction and to identify strategies to incorporate beneficiaries' socio-economic conditions and housing needs into post conflict housing reconstruction
5. To develop a theoretical model which can be used by policy makers, professional and practitioners to benefit the users and support successful post conflict housing reconstruction in conflict affected areas in Sri Lanka.

2 Proposed research methodology

Research methodology refers to the procedural framework within which the research is conducted (Remenyi *et al.*, 1998). As mentioned above, the purpose of this research is to enhance post conflict housing reconstruction through understanding the beneficiaries' socio-economic conditions and their housing needs in context of post conflict reconstruction. My approach to the study takes the view that beneficiaries attach their own individual meanings to their housing needs. Therefore this aspect is treated as subjective. Hence, beneficiaries' housing needs are viewed as social phenomena. Beneficiaries' socio economic conditions are treated as facts. According to Fellows and Liu (2008), qualitative approaches seek to gain insights and to understand people's perceptions of the world, whether as individuals or groups. Accordingly, qualitative research investigates people's beliefs, understandings, opinions, views etc. This study is mainly concerned with subjective meanings of housing needs and stresses the qualitative approach to the research. Data collection will be done thorough unstructured interviews guided by the areas of concern.

Post conflict housing reconstruction carried out in the context of post conflict reconstruction will the phenomenon of the data collection. Interviews will be carried out, in particular, with beneficiaries who need housing and professional practitioners and policy makers who are involved in post conflict housing reconstruction. Based on the analysis of this data, a theoretical framework will be developed which explains the relationship between socio economic conditions and housing needs, with strategies to be incorporated into the post conflict housing reconstruction process. Computer packages that can be used to analyse qualitative data, can also be used to store transcripts, data and even to conduct simple searches for specified concepts. Based on these advantages, Nivo will be used to facilitate the analysis of qualitative data collected through unstructured interviews.

3 Sustainability perspectives of post conflict human settlements

The concept of sustainability evolves around three key elements of economic, environmental and social equilibriums. According to Norton (1999), sustainable housing brings together five key characteristics:

- Environmental sustainability - Does the approach avoid depleting natural resources bases and contaminating the environment?
- Technical sustainability - Can the skills be introduced and passed on to others, and are the tools needs accessible?
- Financial sustainability - Can money or service exchange be accessed to pay for the work that needs to be done?

- Organisational sustainability - Is there a structure of sorts that allows one to bring together the different stakeholders without, for example, needing to call on outside expertise on each occasion?
- Social sustainability - Does the overall process and the product fit within and satisfy the needs of society?

The housing must be appropriate to the needs of the family, suitable to the local environment and located in an area where there is employment and where services are adequate to the needs of the occupants. If there is no work and there are no facilities, people will move, abandoning their new homes (Barakath, 2003; Barakath *et al.*, 2004). As this research aims to enhance post conflict housing reconstruction by incorporating beneficiaries' housing needs and their socio-economic conditions into post conflict housing reconstruction, it contributes to the sustainable development of post conflict housing reconstruction. However, Hasic and Roberts (1999) indicate that the housing sector is generally considered to be a catalyst for starting broad post-war intervention leading to sustainable development, particularly if the local population is involved (Minervini, 2002). Thus it is clear that in the context of post conflict housing there are different perspectives of sustainability and it is worthwhile to familiar with them all to get a better understanding. In this context, this section provides the literature findings on sustainability perspectives of post conflict human settlements.

When conflicts occur it is always human settlements, people and property that are among the most affected. Rebels tend to target human settlements and infrastructure as part of their strategy to disrupt the logistical flow of the enemy and to put the sitting government in difficulty (Barakath, 2002; Rugumamu and Gbla, 2003; Nkurunziza, 2008). Physical structures, such as, housing, schools, health facilities, roads, bridges, dams, railways, airports, ports, electricity grids, commercial enterprises and telecommunication facilities are often damaged in conflicts (Cuny and Tanner, 1995; Rugumamu and Gbla, 2003; FAO, 2005; Grant, 2005; Nkurunziza, 2008). Housing is an extremely vulnerable asset, and the destruction of homes or their loss through displacement or dispossession is one of the most visible effects of conflict and natural disaster (Barakath, 2003). Armed conflicts not only cause extensive loss of life, damage to property and harm to the environment but also limit the development. Anand (2005) indicates, conflict is a challenge to development in the world and conflict can retard progress towards Millennium Development Goals. Conflicts constrain the alleviation of poverty (World Bank, 1998).

Therefore post conflict reconstruction helps to reactivate the development process that has been disrupted by the conflict. Post conflict housing reconstruction is identified as one of the first steps towards environmental and economic recovery and development after a complex emergency (Minervini, 2002) and is asserted as one of the most important problems to be dealt within the period

of reconstruction (Malpass, 2003). Therefore housing reconstruction after war plays an important role in establishing the country's development and peace.

However, post-crisis responses by national governments, bilateral, NGOs and UN agencies have been characterised by the implementation of a series of rapid reconstruction projects that are not linked with the long term development strategy (UN-HABITAT, 2004). As Barakath (2003) claims housing reconstruction is a complex process, which faces significant challenges and success typically requires a good deal of time and preparation. In the immediate aftermath of an emergency, this may not be available. The urgent need to do something within a short space of time is not conducive to good, sustainable housing reconstruction. Housing interventions after conflicts are often planned and implemented rapidly, and in isolation from their political, economic or social environment. This can waste financial and human resources critically. Therefore By integrating the principles of sustainability from the earliest stages of recovery in human settlements can contribute significantly to building foundations for development.

3.1 Safety and security

Ensuring security and protection, and the elimination of the circumstances and occurrences that generate dispute and conflict is considered as the first pre-condition for achieving sustainable human settlements after conflicts (UN-HABITAT, 2004). Therefore it is crucial to restore or if it did not exist before set-up an effective and sympathetic law-keeping police service, backed by an impartial and equally effective judiciary. Security of tenure and access to land and resources are central issues in post conflict reconstruction, in particular with reference to displaced populations. When people have security where they live, they are better able to manage the space, and engage in activities that will reduce, rather than increase their vulnerability (UN-HABITAT, 2004). Secure tenure will protect the land and property rights of affected or displaced people and develop long term solutions for land and property disputes. Access to resources like land and water is usually an underlying cause of conflict. With careful understanding of antecedents, any imbalances and sensitive situations must be addressed through both formal and traditional systems, to ensure equitable access and use of such resources by all communities to support their livelihood. In the same vein, the system for allocation, use and registration of land and property will need to be rationalized (UN-HABITAT, 2004). This is a crucial tool for conflict resolution.

3.2 Return and reintegration of displaced population

The more direct effects of war are the fatalities and population displacements (Cuny and Tanner, 1995; Rugumamu and Gbla, 2003). Due to conflicts people flee the area, either across borders (refugees) or as IDPs. Refugees are people who flee their homes for the safety of another country and IDPs are people who flee from violence but remain in their own country. While refugees have the

protection of international laws, IDPs are subject to the laws of the country. About 35 million people are displaced as a result of conflict (World Bank, 1998). Most displaced families lost their assets, livelihood and accumulated wealth (Cain, 2007). For many whom return after a conflict the biggest concern is the availability of a sustainable livelihood. While employment opportunities are found to be typically rare in rural areas, lands may not be available for agricultural purposes because of mines. People may not have the access to the basic services (FAO, 2005). Response after conflict must consider their longer term needs as well, either in-situ, or in their places of origin. However it is found that the response phase after conflict tends to approach displaced populations as beneficiaries rather than partners in the recovery process.

3.3 Promoting economic development during recovery

Conflict breaks down the underpinnings of the economy, disrupts markets and distribution networks and destroys banking and credit systems (World Bank, 1998). Armed conflicts have produced massive poverty in many of the least prosperous areas of the world (Cuny and Tanner, 1995). Furthermore, war disturbs the productive base of a community. Physical destruction of infrastructure and services affects agricultural and industrial production. Prolonged conflicts have inflicted severe wounds in war affected countries making them the least developed countries in the world. Most countries at this stage have devastated or at least have severely distorted economies (Castillo, 2001). Poverty and lack of resources increases vulnerability, weakens coping strategies and delays the recovery process. A vital local economy is one of the key elements in sustainable recovery and development, yet the economic recovery is also recognized as one of the most difficult aspects of the process.

However, many communities have resources that can be tapped such as the availability of local building materials, the existence of a labor force, and most importantly the eagerness of local communities and the private sector to participate in the recovery process. As an example a fieldwork carried out by El-Masri and Kellett (2001) establishes the households' high degree of self reliance: adopting different coping mechanisms (savings, social networks and existing building stocks) to provide housing despite the problems associated with displacement. Therefore this reveals the people's considerable ability to deal with the problem of homelessness as opposed to the idea of helpless victims.

Re-establishing small scale production in the affected areas, creating employment opportunities for local entrepreneurs and the community itself - both affected/displaced and host communities - and reinforcing the local building sectors all are contributing to sustainable recovery. All in all, strategic physical reconstruction of housing, infrastructure, public facilities and utilities play a fundamental role in the functionality and success of local economy (UN-HABITAT, 2004).

3.4 Good governance

Public participation and inclusive decision-making are well recognized as central elements for good governance (UN-HABITAT, 2004). Inclusive decision-making is at the heart of good governance, and participation of civil society is crucial to achieving sustainable recovery from a conflict.

Conflict affects men and women differently. Men are more likely to have been recruited, either voluntarily or forcibly, by one of the opposing forces, and may have been killed or captured (FAO, 2005). This results in women facing the increased responsibility of looking after the children, elderly and themselves. Children would also be affected by the conflict. The success of inclusive decision-making is closely related to the quality of the participation of the civil society in the decisions affecting their lives and on the responsiveness of planning and policy-making processes to the needs of the communities. Without the commitment of all the stakeholders involved, recovery efforts will have only limited impact.

Participatory involvement is a process that requires substantive support to local governments in strengthening their technical and institutional capacities and in understanding the main principles of people's participation, and good governance. On the other hand with the displacement of people due to conflicts, a commensurate loss of skill and capacity occurs. The links between civil society and local/national government will be the key relationship that sustainable recovery strategies must endeavor to foster. The need for capacity building is thus crucial to prepare local government elected officials for expanded leadership roles to practice participative and accountable governance. This includes skills of negotiation, communication, conflict resolution, transparent local financial management and facilitating local economic development. Good governance enhances institutional capacities and decision-making process affecting economic recovery, development and activities. Promotion of good governance serves therefore as a cornerstone of sustainable recovery and development in human settlements.

3.5 Addressing sustainable urbanization

It is important that during response phases the needs of urban areas and potential urbanization be addressed. Strategies to respond in urban settings after conflict will differ – there will be needs, issues and dynamics that will be unique in the urban context. Community development strategies, for example, need to be reworked to fit urban populations who often come from different areas, in cases of post conflict, possibly groups from different sides of the conflict.

Urbanization in post conflict contexts is a phenomenon that must be prioritized within a sustainable recovery framework. Urban centres are increasingly focal points for economic opportunity, provoking large scale – and often long term – displacement during and after conflict. Urban centres also draw

people seeking better infrastructure and services – education and health in particular – than rural areas. What is especially concerning is that many of the expected jobs and educational opportunities in urban areas are not realized and consequently, often crime, ethnic tensions and rising poverty create new threats to peace, security and development.

4 Discussion

According to section 3 above, sustainable post conflict human settlements needs to take into account safety and security, return and reintegration of displaced population, economic development, good governance and sustainable urbanisation. Within this context this particular research will enhance the sustainable development of post conflict housing reconstruction through integrating beneficiaries housing needs and their socio-economic conditions with post conflict reconstruction which is found to be missed in post conflict housing reconstruction.

5 Summary

War-torn countries characterized by death and injuries of much of the people, massive displacement of people as refugees and Internally Displaced Persons (IDPs), widespread destruction of properties, poor institutional capacities and vulnerability to disease and crimes. It is widely acknowledged that wars exist in many developing countries. Post-conflict reconstruction supports the transition from conflict to peace in an affected country through the rebuilding of the socioeconomic framework of the society. Post conflict reconstruction requires repair and reconstruction of housing, social and economic infrastructure of conflict affected countries. Reintegration of displaced people again claims the need of repair and reconstruction of housing and this can lead country towards development and then peace as well. Within this context post conflict housing reconstruction plays an important role in establishing the country's development and peace. However most of housing projects are not appropriate for the beneficiaries' needs and socio-economic conditions and resulted remodelling or abandon. Therefore, this research study will focus on how to integrate beneficiaries' socio-economic conditions and housing needs into post conflict housing reconstruction. As sustainable housing must be appropriate to the needs of the family, suitable to the local environment and located in an area where there is employment and where services are adequate to the needs of the occupants, this research contributes to enhance sustainable development. However sustainability perspectives of post conflict human settlements are much broader and basically include safety and security, return and reintegration of displaced population, economic development, good governance and sustainable urbanisation.

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